



## JAPANESE PATENT OFFICE

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(54) RECORDING AND REPRODUCING SEPARATION TYPE COMBINED HEAD AND ITS PRODUCTION

(57)Abstract:

**PURPOSE:** To decrease the area of a reduction ratio detecting element and to increase a packaging density by commonly using the terminal part of the reduction ratio detecting element for an actual element.

**CONSTITUTION:** This recording and reproducing sepn. type combined head is provided with an actual element A and a reduction ratio detecting element B in combination. A lower shield 3 of NiFe film formed by a sputtering method, etc., and a lower gap film 4 consisting of an insulating film of alumina, etc., are formed on a ceramic substrate 2 laminated with a base alumina film 1. Further, combined films consisting of a magneto-resistance effect film 5 and a magnetic domain control film 6 are successively and continuously formed thereon. At this time, the detecting part of the reduction ratio detecting element B is also arranged previously on a photomask

